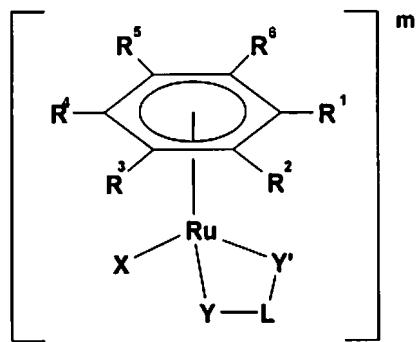


II. AMENDMENTS TO THE CLAIMS

The below listing of claims replaces all prior versions and listings of claims in the application:

1-25. (Cancelled)

26. (Currently Amended) A method of treating cancer which comprises administering to a subject in need of treatment a therapeutically effective amount of a ruthenium(II) compound of formula (I):



(I)

wherein:

R¹, R², R³, R⁴, R⁵ and R⁶ independently represent H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, halo, CO₂R⁷, CONR⁸R⁹, COR¹⁰, SO₃H, SO₂NR¹¹R¹², aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R¹³, NR¹⁴R¹⁵, aryl or aralkyl, which latter two groups are optionally substituted on the aromatic ring by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7a}, CONR^{8a}R^{9a}, COR^{10a}, SO₃G, SO₂NR^{11a}R^{12a}, aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R^{13a}, NR^{14a}R^{15a}, or R¹ and R² together with the ring to which they are bound represent a saturated or unsaturated carbocyclic or heterocyclic group containing up to three 3-to 8-membered carbocyclic or heterocyclic rings, wherein each carbocyclic or heterocyclic ring may be fused to one or more other carbocyclic

or heterocyclic rings, and wherein each of the rings may be optionally substituted by one or more groups independently selected from (C_1 - C_6)alkyl, (C_2 - C_6)alkenyl, (C_2 - C_6)alkynyl, hydroxy(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, aryl, aralkyl, halo, CO_2R^{7b} , $CONR^{8b}R^{9b}$, COR^{10b} , SO_3G' , $SO_2NR^{11b}R^{12b}$, aryloxy, (C_1 - C_6)alkylthio, $-N=N-R^{13b}$, $NR^{14b}R^{15b}$ or (C_1 - C_6)alkoxy;

R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{7a} , R^{8a} , R^{9a} , R^{10a} , R^{11a} , R^{12a} , R^{13a} , R^{14a} , R^{15a} , R^{7b} , R^{8b} , R^{9b} , R^{10b} , R^{11b} , R^{12b} , R^{13b} , R^{14b} , and R^{15b} are independently selected from H, (C_1 - C_6)alkyl, aryl or aralkyl;

X is a neutral or negatively charged O-, N- or S-donor ligand or halo;

G and G' are independently selected from alkali metals, aryl, aralkyl and (C_1 - C_6)alkyl;

Y-L-Y' is a bidentate ligand bearing $[[a]]$ negative charge with a proportion of the charge on both Y and Y', Y and Y' are independently selected from O, S or NR^{16} , wherein R^{16} is H, (C_1 - C_6) alkyl, aryl or aralkyl, and L is a group linking Y and Y' and comprises one or more groups selected from (C_1 - C_6) alkylene, (C_1 - C_6) alkenylene, (C_1 - C_6) alkynylene, arylene, aralkylene, alkarylene, each of said latter six groups being optionally substituted, ferrocenylene, Se, Se-Se, S-S, N=N and C=O;

m is -1, 0 or +1 and the compound comprises a counterion when m is -1 or +1;

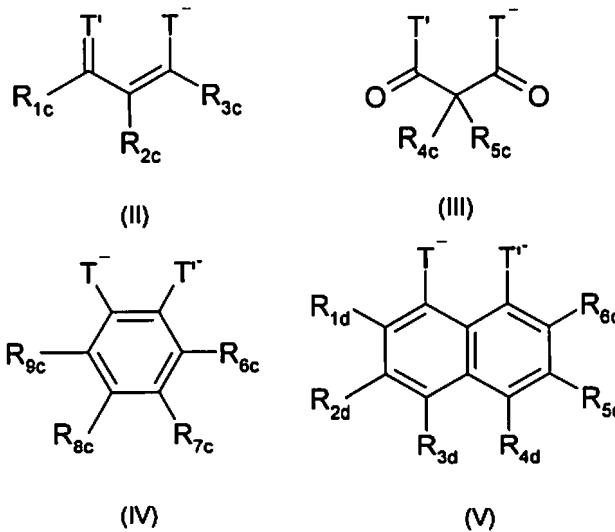
the compound of formula (I) optionally being in the form of a dimer in which two L groups are linked either directly or through a group comprising one or more of (C_1 - C_6) alkylene, (C_1 - C_6) alkenylene, arylene, aralkylene, alkarylene, Se, Se-Se, S-S, N=N and C=O or in which L bears two Y groups and two Y' groups.

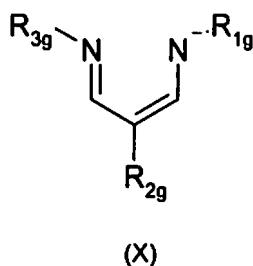
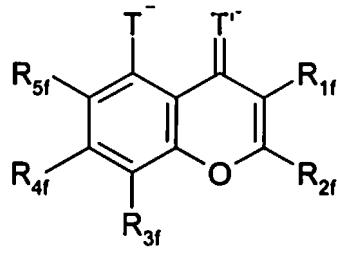
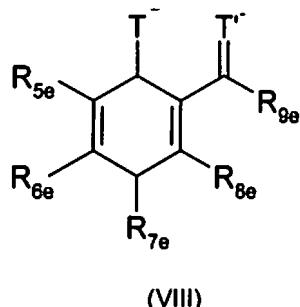
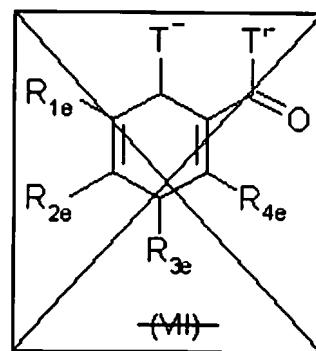
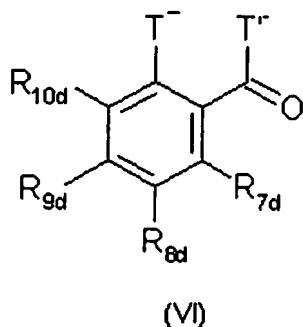
27. (Previously Amended) The method as claimed in claim 26, wherein R¹, R², R³, R⁴, R⁵ and R⁶ are independently selected from H, (C₁-C₆) alkyl and phenyl or R¹ and R² together with the ring to which they are bound represent anthracene or a hydrogenated derivative of anthracene, said phenyl and anthracene or a hydrogenated derivative of anthracene group being optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆) alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, phenyl, benzyl, halo, carboxyl, CO₂(C₁-C₆)alkyl, CONH₂, COH, CO(C₁-C₆)alkyl, SO₃H, SO₂NH₂, phenoxy, (C₁-C₆)alkylthio, NH₂ or (C₁-C₆) alkoxy.

28. (Previously Amended) The method as claimed in claim 26, wherein m is 0.

29. (Previously Amended) The method as claimed in claim 26, wherein X is halo or CH₃CN.

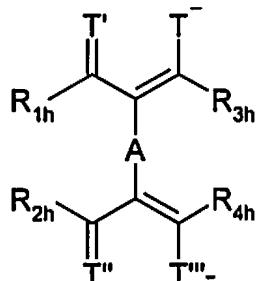
30. (Currently Amended) The method as claimed in claim 26, wherein Y-L-Y' is selected from ligands of formulae (II) to (VI) and (VIII) to (X):



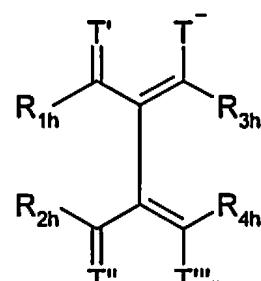


wherein T and T' are independently selected from O and S,
R_{1g} and R_{3g} are independently H, (C₁-C₆) alkyl, aryl or aralkyl,
R_{1c} to R_{5f} and R_{2g} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups and the corresponding groups for R_{1g} and R_{3g} are optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃G', SO₂NR^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} or (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b}, and R^{15b} are as defined.

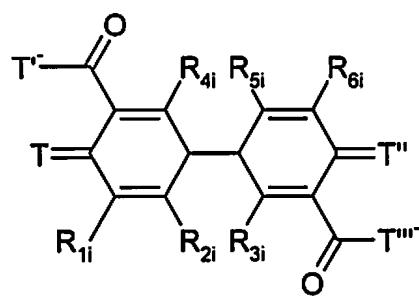
31. (Previously Amended) The method as claimed in claim 26, wherein Y-L-Y' is selected from:



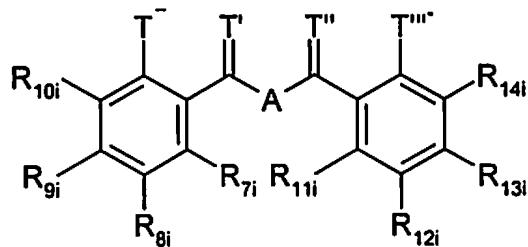
(XI)



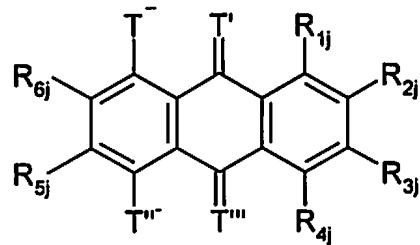
(XII)



(XIII)



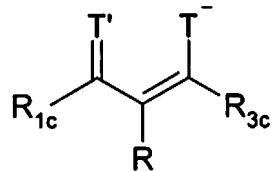
(XIV)



(XV)

wherein T, T', T'' and T''' are independently selected from O and S,
A comprises one or more groups selected from (C₁-C₆)alkylene, (C₁-C₆)alkenylene,
(C₁-C₆) alkynylene, arylene, aralkylene, alkarylene, ferrocenylene, Se, Se-Se, S-S,
N=N and C=O;
and R_{1b} to R_{6j} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two
groups are optionally substituted by one or more groups independently selected from
(C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-
C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃G', SO₂NR^{11b}R^{12b},
aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} or (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b},
R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b}, and R^{15b} are as defined.

32. (Previously Amended) The method as claimed in claim 26, wherein Y-L-Y' is:



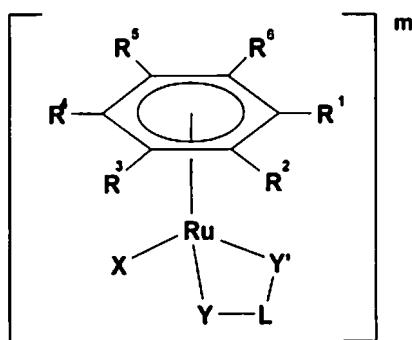
wherein T and T' are independently O and S, and R, R_{1c}, and R_{3c} are independently H,
(C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups are optionally substituted by
one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-
C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7b},
CONR^{8b}R^{9b}, COR^{10b}, SO₃G', SO₂NR^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b},
NR^{14b}R^{15b} or (C₁-C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b}, and
R^{15b} are as defined.

33. (Previously Amended) The method as claimed in claim 32, wherein T and T'
are both O, R is H or (C₁-C₆) alkyl and R_{1c} and R_{3c} are independently (C₁-C₆)alkyl or
phenyl, said phenyl optionally substituted by (C₁-C₆)alkyl, hydroxy(C₁-C₆)alkyl,
amino(C₁-C₆) alkyl, halo, carboxyl, CO₂(C₁-C₆)alkyl, CONH₂, COH, CO(C₁-
C₆)alkyl, SO₃H, SO₂NH₂, phenoxy, (C₁-C₆) alkylthio, NH₂ or (C₁-C₆)alkoxy.

34. (Previously Amended) The method as claimed in claim 33, wherein R is H and R_{1c} and R_{3c} are independently (C₁-C₆)alkyl or phenyl.

35. (Previously Amended) The method as claimed in claim 26, wherein Y and Y' are both O.

36. (New) A method of treating ovarian adenocarcinoma which comprises administering to a subject in need of treatment a therapeutically effective amount of a ruthenium(II) compound of formula (I):



wherein:

R¹, R², R³, R⁴, R⁵ and R⁶ independently represent H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, halo, CO₂R⁷, CONR⁸R⁹, COR¹⁰, SO₃H, SO₂NR¹¹R¹², aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R¹³, NR¹⁴R¹⁵, aryl or aralkyl, which latter two groups are optionally substituted on the aromatic ring by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7a}, CONR^{8a}R^{9a}, COR^{10a}, SO₃G, SO₂NR^{11a}R^{12a}, aryloxy, (C₁-C₆)alkoxy, (C₁-C₆)alkylthio, -N=N-R^{13a}, NR^{14a}R^{15a}, or R¹ and R² together with the ring to which they are bound represent a saturated or unsaturated carbocyclic or heterocyclic group containing up to three 3-to 8-membered carbocyclic or heterocyclic rings, wherein each carbocyclic or heterocyclic ring may be fused to one or more other carbocyclic or heterocyclic rings, and wherein each of the rings may be optionally substituted by

one or more groups independently selected from (C_1 - C_6)alkyl, (C_2 - C_6)alkenyl, (C_2 - C_6)alkynyl, hydroxy(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, aryl, aralkyl, halo, CO_2R^{7b} , $CONR^{8b}R^{9b}$, COR^{10b} , SO_3G' , $SO_2NR^{11b}R^{12b}$, aryloxy, (C_1 - C_6)alkylthio, $-N=N-R^{13b}$, $NR^{14b}R^{15b}$ or (C_1 - C_6)alkoxy;

R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{7a} , R^{8a} , R^{9a} , R^{10a} , R^{11a} , R^{12a} , R^{13a} , R^{14a} , R^{15a} , R^{7b} , R^{8b} , R^{9b} , R^{10b} , R^{11b} , R^{12b} , R^{13b} , R^{14b} , and R^{15b} are independently selected from H, (C_1 - C_6)alkyl, aryl or aralkyl;

X is a neutral or negatively charged O-, N- or S-donor ligand or halo;

G and G' are independently selected from alkali metals, aryl, aralkyl and (C_1 - C_6)alkyl;

Y-L-Y' is a bidentate ligand bearing negative charge with a proportion of the charge on both Y and Y', Y and Y' are independently selected from O, S or NR¹⁶, wherein R¹⁶ is H, (C_1 - C_6) alkyl, aryl or aralkyl, and L is a group linking Y and Y' and comprises one or more groups selected from (C_1 - C_6) alkylene, (C_1 - C_6) alkenylene, (C_1 - C_6) alkynylene, arylene, aralkylene, alkarylene, each of said latter six groups being optionally substituted, ferrocenylene, Se, Se-Se, S-S, N=N and C=O;

m is -1, 0 or +1 and the compound comprises a counterion when m is -1 or +1;

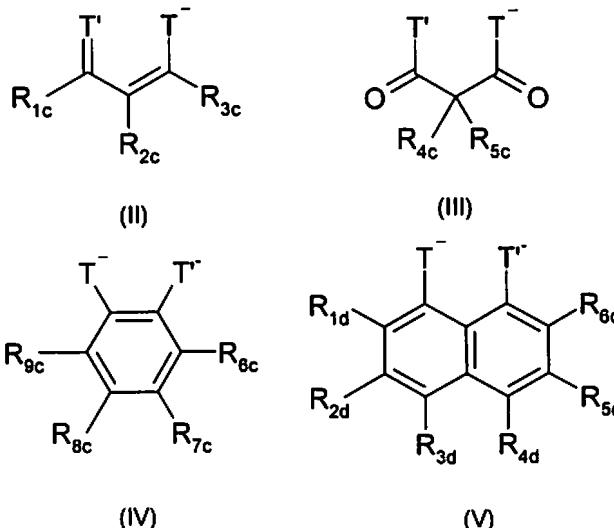
the compound of formula (I) optionally being in the form of a dimer in which two L groups are linked either directly or through a group comprising one or more of (C_1 - C_6) alkylene, (C_1 - C_6) alkenylene, arylene, aralkylene, alkarylene, Se, Se-Se, S-S, N=N and C=O or in which L bears two Y groups and two Y' groups.

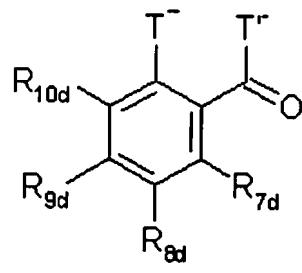
37. (New) The method as claimed in claim 36, wherein R¹, R², R³, R⁴, R⁵ and R⁶ are independently selected from H, (C₁-C₆) alkyl and phenyl or R¹ and R² together with the ring to which they are bound represent anthracene or a hydrogenated derivative of anthracene, said phenyl and anthracene or a hydrogenated derivative of anthracene group being optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆) alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, phenyl, benzyl, halo, carboxyl, CO₂(C₁-C₆)alkyl, CONH₂, COH, CO(C₁-C₆)alkyl, SO₃H, SO₂NH₂, phenoxy, (C₁-C₆)alkylthio, NH₂ or (C₁-C₆) alkoxy.

38. (New) The method as claimed in claim 36, wherein m is 0.

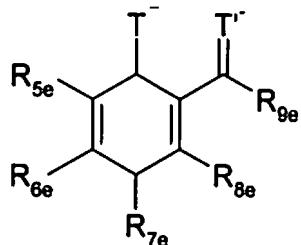
39. (New) The method as claimed in claim 36, wherein X is halo or CH₃CN.

40. (New) The method as claimed in claim 36, wherein Y-L-Y' is selected from ligands of formulae (II) to (VI) and (VIII) to (X):

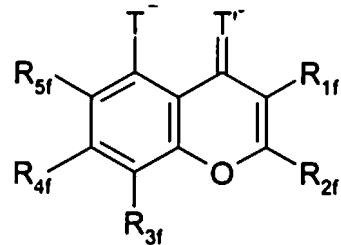




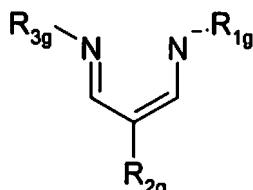
(VI)



(VIII)



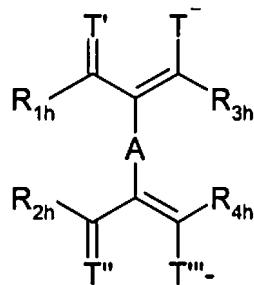
(IX)



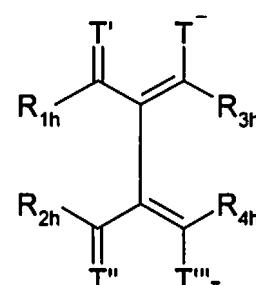
(X)

wherein T and T' are independently selected from O and S,
R_{1g} and R_{3g} are independently H, (C₁-C₆) alkyl, aryl or aralkyl,
R_{1c} to R_{5f} and R_{2g} are independently H, (C₁-C₆)alkyl, aryl, aralkyl, wherein the latter two groups and the corresponding groups for R_{1g} and R_{3g} are optionally substituted by one or more groups independently selected from (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, hydroxy(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, aryl, aralkyl, halo, CO₂R^{7b}, CONR^{8b}R^{9b}, COR^{10b}, SO₃G', SO₂NR^{11b}R^{12b}, aryloxy, (C₁-C₆)alkylthio, -N=N-R^{13b}, NR^{14b}R^{15b} or (C₁- C₆)alkoxy, wherein R^{7b}, R^{8b}, R^{9b}, R^{10b}, R^{11b}, R^{12b}, R^{13b}, R^{14b}, and R^{15b} are as defined.

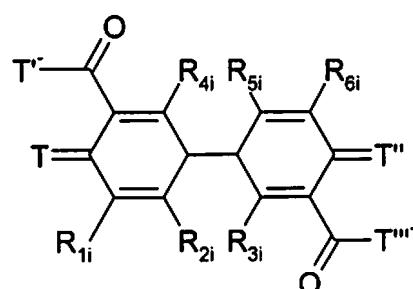
41. (New) The method as claimed in claim 36, wherein Y-L-Y' is selected from:



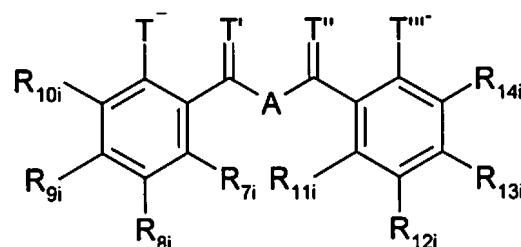
(XI)



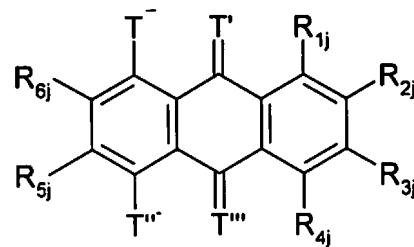
(XII)



(XIII)



(XIV)



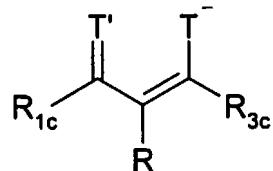
(XV)

wherein T, T', T" and T''' are independently selected from O and S,

A comprises one or more groups selected from (C_1 - C_6)alkylene, (C_1 - C_6)alkenylene, (C_1 - C_6) alkynylene, arylene, aralkylene, alkarylene, ferrocenylene, Se, Se-Se, S-S, N=N and C=O;

and R_{1h} to R_{6j} are independently H, (C_1 - C_6)alkyl, aryl, aralkyl, wherein the latter two groups are optionally substituted by one or more groups independently selected from (C_1 - C_6)alkyl, (C_2 - C_6)alkenyl, (C_2 - C_6)alkynyl, hydroxy(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, aryl, aralkyl, halo, CO_2R^{7b} , $CONR^{8b}R^{9b}$, COR^{10b} , SO_3G' , $SO_2NR^{11b}R^{12b}$, aryloxy, (C_1 - C_6)alkylthio, -N=N-R^{13b}, $NR^{14b}R^{15b}$ or (C_1 - C_6)alkoxy, wherein R^{7b} , R^{8b} , R^{9b} , R^{10b} , R^{11b} , R^{12b} , R^{13b} , R^{14b} , and R^{15b} are as defined.

42. (New) The method as claimed in claim 36, wherein Y-L-Y' is:



wherein T and T' are independently O and S, and R, R_{1c} , and R_{3c} are independently H, (C_1 - C_6)alkyl, aryl, aralkyl, wherein the latter two groups are optionally substituted by one or more groups independently selected from (C_1 - C_6)alkyl, (C_2 - C_6)alkenyl, (C_2 - C_6)alkynyl, hydroxy(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, aryl, aralkyl, halo, CO_2R^{7b} , $CONR^{8b}R^{9b}$, COR^{10b} , SO_3G' , $SO_2NR^{11b}R^{12b}$, aryloxy, (C_1 - C_6)alkylthio, -N=N-R^{13b}, $NR^{14b}R^{15b}$ or (C_1 - C_6)alkoxy, wherein R^{7b} , R^{8b} , R^{9b} , R^{10b} , R^{11b} , R^{12b} , R^{13b} , R^{14b} , and R^{15b} are as defined.

43. (New) The method as claimed in claim 42, wherein T and T' are both O, R is H or (C_1 - C_6) alkyl and R_{1c} and R_{3c} are independently (C_1 - C_6)alkyl or phenyl, said phenyl optionally substituted by (C_1 - C_6)alkyl, hydroxy(C_1 - C_6)alkyl, amino(C_1 - C_6)alkyl, halo, carboxyl, $CO_2(C_1-C_6)alkyl$, $CONH_2$, COH , $CO(C_1-C_6)alkyl$, SO_3H , SO_2NH_2 , phenoxy, (C_1 - C_6) alkylthio, NH_2 or (C_1 - C_6)alkoxy.

Application Serial No.: 10/520,239
Applicants: Peter John SADLER et al
Office Action Mailing Date: April 30, 2008
RCE Filed: October 30, 2008

Docket No. 14084-005US1/RJW/CP6263

44. (New) The method as claimed in claim 43, wherein R is H and R_{1c} and R_{3c} are independently (C₁-C₆)alkyl or phenyl.

45. (New) The method as claimed in claim 36, wherein Y and Y' are both O.